



November 2006

ZOOM

IN ON THE USA

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CLIMATE & WEATHER IN THE UNITED STATES



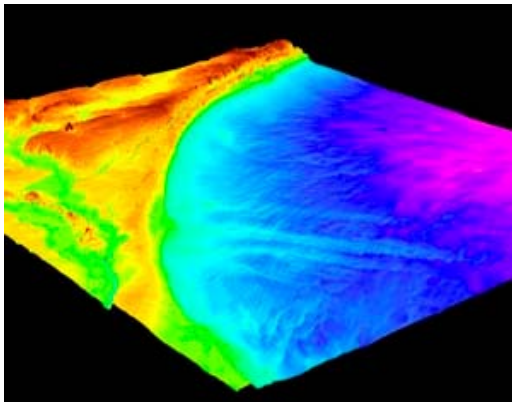
Lone birch tree stands amidst a mosaic of fall colors in the Sawtooth Mountain Range near Tofte, Minn., off the North Shore of Lake Superior, Sept. 27, 1997 Photo © AP Images/Jim Mone

The English and American people have earned themselves the reputation of extremely weather-conscious nations. "What does the forecast say for tonight?" or "What a lovely day, isn't it?" or, more frequently perhaps: "What awful weather we're having today!" are commonly overheard questions, comments and exclamations. Zoom in on the USA has set off to find the importance of weather for the American people.

... But first ...

BREAKING NEWS

The U.S. population has reached 300 million inhabitants. This happened on October 17 at about 7:46 a.m. Of course this is only an official estimate. In a country as big as the U.S. it is not possible identify exactly the 300th million American. Visit the U.S. Census Bureau website at: <http://www.census.gov/> and you can observe how fast the world's and the American population is changing. This clock really is ticking!



Sea floor displacements caused by undersea earthquakes are the cause of huge waves called "tsunami". As tsunamis threaten the Pacific shore areas it is important to forecast them as early as possible. The photo shows digital elevation models, designed to improve forecasting for early tsunami warning system.
Photo NOAA

American Weather

In a country with an area of 9,363,520 km² and six time zones, where greatest distances (not including Alaska) exceed 4,500 km (east-west) and 2,500 km (north-south), a country whose northernmost state (Alaska) lies beyond the Arctic Circle while the southernmost (Hawaii), a little below the Tropic of Cancer at 20° latitude, climate and weather vary considerably. America's Death Valley in California is the world's runner up for the highest temperature with 57°C measured on July 10, 1913. The lowest temperature in the U.S., -62°C, was recorded at Prospect Creek, Alaska. The difference is then 119°C. Precipitation can vary dramatically, however, the climate in most of the United States is moderate.

Still, it is the United States that experiences nature's most violent weather phenomena. Hurricanes, tornadoes, blizzards, flooding, droughts and even tsunamis are unfortunately relatively common occurrences.

TORNADOES

In about 800 tornadoes reported each year in the U.S., 80 people die and 1,500 get injured. A tornado is defined as a violently rotating column of air extending from a thunderstorm to the ground. Tornadoes most often affect the Great Plains as weather systems move east from the Rocky Mountains. Weak tornadoes that form over warm water are called waterspouts. They occur commonly along the Gulf Coast and southeastern states.

An extremely useful device that detects the coming tornado is weather radar. It detects air movement towards or away from the radar. National Oceanic and Atmospheric Administration Weather Radio keeps its listeners informed about the weather and issues severe thunderstorm and tornado warnings for areas where they are expected.

HURRICANES

A hurricane is a severe tropical storm that forms over warm tropical oceans. Hurricanes produce violent winds, huge waves, torrential rains and floods. Hurricanes rotate counterclockwise around an "eye, approximately 5 hurricanes strike the U.S. coastline from Texas to Maine in any three years period. Summer months are the hurricane season. When hurricanes

move onto land, rain, strong winds and waves can damage buildings, trees and cars. The heavy waves are called a storm surge.

Hurricane Katrina was the third-strongest landfalling U.S. hurricane, and the most costly (it caused \$81.2 billion in damage). Katrina devastated the Gulf Coast area of Louisiana, affecting the city of New Orleans most severely. Its aftermath was the flooding of the city when levees separating Lake Pontchartrain from New Orleans were breached by the surge. Katrina was also the deadliest U.S. hurricane since 1928 leaving 1,836 people dead.

Text by AIRC. Krakow. Edited by IRC Madrid.



What looks like a beautiful snow-white cloud against the tranquil blue sky is in fact the developed eyewall of Hurricane Katrina. The photo was taken on Aug. 28, 2005, on board of a NOAA WP-3D Orion hurricane hunter aircraft before the storm made landfall on the United States Gulf Coast.

Photo NOAA

Climate Change: We can make a Difference!

Climate change may be a big problem, but there are many little things we can do to make a difference. If we try, most of us can do our part to reduce the amount of greenhouse gases that we put into the atmosphere. Many greenhouse gases come from things we do every day, these greenhouse gases trap energy in the atmosphere and make the Earth warmer.

Cars: driving cars is not wrong, we just have to be smart about it, for example four people can ride together in one car instead of driving four cars to work.

Save electricity: Whenever we use electricity, we help put greenhouse gases into the air. By turning off lights, the television, and the computer when you are through with them, you can help a lot.

Bike, Bus, and Walk: You can save energy by taking the bus, riding a bike, or walking.

Plant trees and avoid fires: planting trees is fun and a great way to reduce greenhouse gases. Trees absorb carbon dioxide from the air. Avoid building bonfires and barbecues in the field or the forest.

Recycle: Recycle cans, bottles, plastic bags, and newspapers. When you recycle you send less trash to the landfill and you help save natural resources like trees, oil, and materials such as aluminum.

Source: U.S. Environmental Protection Agency. www.epa.gov

WEATHER TIDBITS



Gene Kelly in the famous scene from the film
Photo © AP Photo

Rain, rain go away; come again another day...

... But not for Don Lockwood, played by Gene Kelly (really Eugene Curran Kelly), who does not mind the rain, or actually the real downpour in one of the most famous musicals of all times:

"Singing in the Rain" (1952). The iconic scene (see photo), is full not only of the unforgettable tune of the title song, but also of an energetic tap dance, he twirls around the lamp-post singing his love to Kathy (Debbie Reynolds): "The sun's in my heart/ And I'm ready for love (You can find the lyrics on the Internet, e.g. at:

<http://www.lyricsondemand.com/soundtracks/s/singintherainlyrics/singintherainlyrics.html>)

Dog Days

The expression 'dog days of summer' is used about the hottest and most humid days of the year. Dogs, as is well-known, and especially hairy ones, are not too fond of such weather. However, if they happen to be film stars, like Benji, who starred in "Benji: from Rags to Riches," (photo below), they are entitled to protection from the heat. The other photo shows a special air conditioning unit which pumped cool air into an enclosure to cool Benji during triple-digit temperatures on the set of the movie on July 24, 2003, in Ogden, Utah.



Photos © AP Photo/Douglas C. Pizac

Cool down

Americans couldn't live without air conditioning. Central air systems have conquered public facilities, cars and private homes. Nothing is as cool as an American office on a hot summer day.

The origins of air conditioning are connected with a medical doctor and the concern he had for his patients. Dr John Gorrie knew that the bedridden sick were uncomfortable in hot, stuffy rooms. In 1842 using compressor technology, he created ice, which he used to cool air for his patients.

However, it is Willis H. Carrier who is the father of air conditioning. He constructed the first centrifugal refrigeration machine, shown in

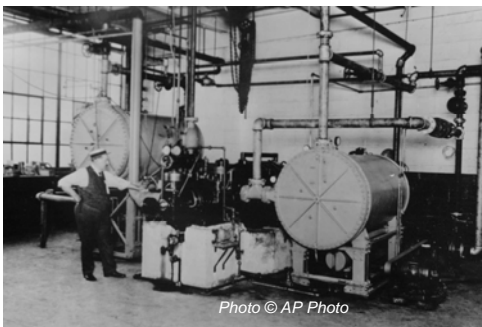


Photo © AP Photo

this photo from 1922.

The first residential air conditioner was not very small, as can be seen in this photo taken at the Atlanta History Center exhibition in 2001. The exhibition showed how southerners handled summertime heat before and after the advent of modern air conditioning and refrigeration.



Photo © AP Photo/John Bazemore

Counting Clouds

There are many idioms with the word "cloud" in English. To 'have one's head in the clouds' means to be absentminded or impractical, "every cloud has a silver lining" gives us some hope in even very difficult situations, if you are "under a cloud" you are out of favor or in trouble, whereas "to be on cloud nine" means to be blissfully happy. Looking at the photo of Ethon Hicks, fishing on Gunnison River, Colorado, we weren't sure which expression to use.



Photo © AP Photo/Nathan Bilow



Activity Page

Win a Prize!

November 2006 contest:
Which American city suffered most from Hurricane Katrina?

Send your answer to
irc@embusa.es

Give your name and address. The deadline is December 15

Answer to "Win a Prize" in the October 2006 issue: Chronometer measures time

Prizes will be sent to you by mail.

Find answers to activities on this page at www.embusa.es/irc.html

EXERCISE 1 Look at the NOAA map below and make comments about important climate events in the U.S. in 2005, e.g. *Heavy rains and flooding affected northeastern states in October.*

Significant U.S. Weather and Climate Events for 2005



EXERCISE 2 Use the weather symbols to prepare a weather forecast for tomorrow.

morning



e.g.: *There's going to be a lot of sunshine in the morning*

noon



early afternoon



later in the afternoon



evening



Glossary

weather conscious - thinking that weather is very important
Tropic of Cancer - latitude line 23° north of the equator
runner up - a competitor who has finished in second place
precipitation - rain, snow or hail
drought - a long period of time with no rain
shelter - covered place made to protect people from bad weather
casualty - a person injured or killed in an accident or in a war
Greenhouse gases: gases like carbon dioxide that could lead to an increase in the global average temperature of the Earth.
aftermath - a situation that is the result of something
levee - natural or artificial embankment or dike
breach - break
tranquil - calm or peaceful
downpour - very heavy rain
stuffy - unpleasantly warm
bedridden - a person who is sick and must stay in bed
centrifugal - directed outwards from the center

EXERCISE 3 Seven words have been removed from the text below. Put them back in appropriate places.

United States Helping To Save Tropical Forests, Cut Foreign Debt

A U.S. conservation program (1) in 1998 is a "win-win" (2) that helps protect the global environment while promoting the economies of the (3) world, U.S. officials say.

Eleven developing countries are (4) with the United States under the Tropical Forest Conservation Act (TFCA), which aims to help save the world's (5) forests by forgiving some of the official debt (6) by these nations to the United States.

This so-called "debt-for-nature swap" also strengthens civil society by providing small grants to (7) organizations (NGOs) and local communities.

(a) tropical; (b) partners; (c) enacted; (d) owed; (e) nongovernmental; (f) deal; (g) developing.

(fragment of the text on US-INFO.STATE.GOV website: <http://usinfo.state.gov/>)

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About ZOOM

Zoom is online at
www.embusa.es/irc/zoom.html

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